

## NISTTech

### Implementation of Role/Group Permission Association using Object Access Type

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Provides more convenient, less costly control of access to objects within a computer system

#### Description

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Object Access Types (OAT) are defined as access control information specifications for network, Web and relational database environments. OATs are entities separate from the objects with which they may be associated. They can be created, edited, deleted, and assigned to or removed from objects. Each OAT defines an access control, which in turn associates a list of individuals, or roles (e.g., branch manager, financial advisor, teller, and employee, in a bank environment) with corresponding sets of permissions and a corresponding list of objects. The same users can be given the same permissions with respect to an additional object by adding that role, assigned to those users, to the corresponding OAT. If the status of an object changes, it can be reassigned from one OAT to another more appropriate OAT.

#### Applications

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- **Computer network security**  
Applies independent entity access control mechanisms to computer networks, relational databases, and to objects accessed over the Internet.

#### Advantages

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- **Convenient**  
Provides access control to objects stored at various locations.
- **Improved security**  
Reduces the occurrences of unauthorized access to information.

#### Abstract

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Security administration in a computer system is simplified by defining a new and independent entity called an Object Access Type (OAT). OATs comprise access control specifications associating roles with permissions, and associating the roles with a set of objects, such as resources or files. Different roles may have differing permissions to objects associated with an OAT, and objects may be assigned to plural OATs. A mechanism is also presented whereby system administrators are provided with the capability to display and manipulate access designations by operating only on the independent OATs.

#### Inventors

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- Barkley, John
- Cincotta, Anthony

#### References

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- #<http://patft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetacgi%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PTXT&s1=6,202,066.PN.&OS=PN/6,202,066>
- Docket: 97-047US

#### Status of Availability

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This invention is now in the public domain.  
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